GTM 6

GUITAR TO MIDI CONVERTER

USER'S MANUAL

CHARVEL™
BY JACKSON / CHARVEL

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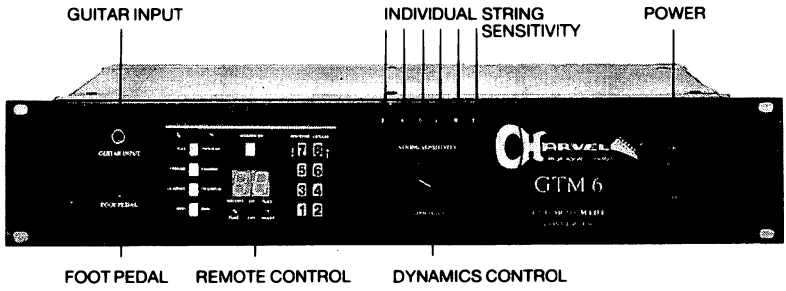

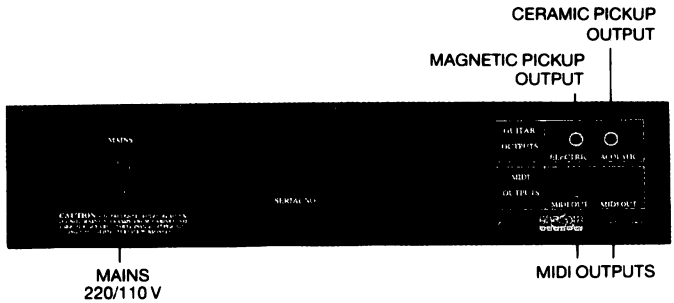

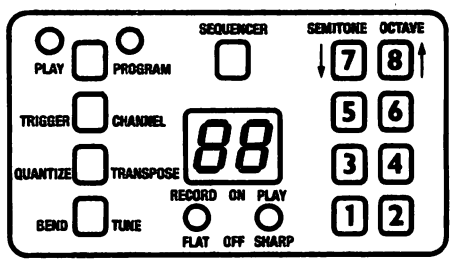

DETACHABLE REMOTE CONTROL

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INSTANT START

Now that you are the happy owner of the CHARVEL GTM 6 we understand that you do not want to spend your time reading boring manuals, you would rather play the guitar synthesizer as soon as possible. Here we provide you with a short guide of how to do this, but after you have had some fun please return to this manual in order to make full use of the extraordinary capabilities this unit offers. Later on you will find the programing card very useful. This reminds you of all program possibilities with a short example.

To use the GTM 6 you need a guitar equipped with a special pickup and also a special stereo cable to connect it to the main unit. You must also have a synthesizer or an expander with a MIDI IN socket on it and a standard MIDI cable. Connect all these together as seen on Fig. 1 Tune both the guitar and the synthesizer to normal A (440 Hz).

Set your MIDI synthesizer to recieve channel number 1. If you do not know how to do this check your synthesizer's manual, all MIDI synthesizers must have a way to do this.

When you turn the GTM 6 on for the first time, make a so called "cold start". This means that any previous adjustments made on the unit will be erased from the memory and everything will be initialized in the simplest straightforward way. It can be achieved by holding down both the TRIGGER and SEQUENCER knobs while you turn the main power switch on.

When you do this, PLAY lights up in the upper left corner, two horizontal lines appear on the display and both LEDs below the display start to flash. If you now press the SEQUENCER button REC turns off and PLAY remains on, and you should hear the "Dwarf's Dance" melody of Grieg. If this does not happen then check if the volume is turned up both on the amplifier and the synthesizer; if the MIDI cable is good; and also if the recieving channel adjustment is good.

Press SEQUENCER again, then the melody stops, and both REC and PLAY will light. Now you can start to play the guitar and enjoy the enviable sounds keyboard players could get for so long.

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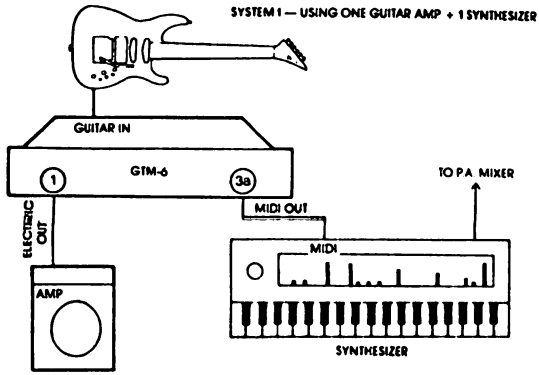
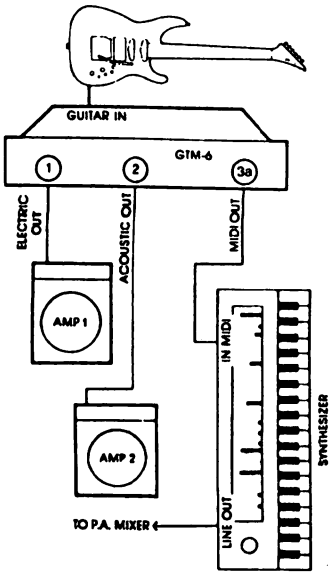
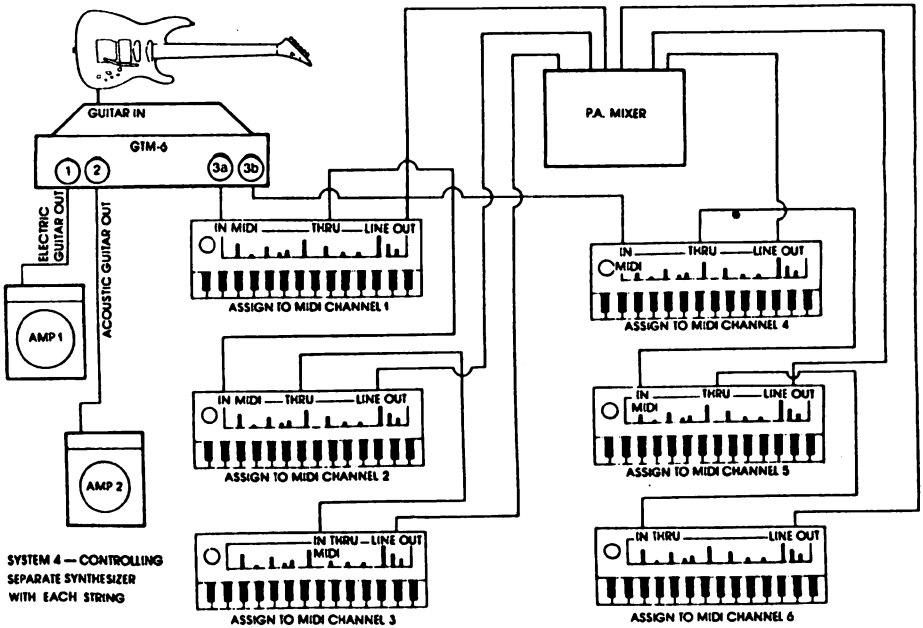
System 1 – Using one guitar amp + 1 synthesizer



System 2 – Using two amps and one synthesizer



System 3 – Controlling separate synthesizer with each string



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DETAILED DESCRIPTION

1. SENSITIVITY ADJUSTMENT

Optimal results of tracking speed and reliability can be obtained only if the individual sting sensitivities are adjusted properly.

The sensitivity of each string can be adjusted separately according to the type of strings used and the usual strength of your plucking, whether you play heavy metal or soft jazz etc.

Press PLAY/PROGRAM and turn the DYNAMICS potentiometer slightly in any direction. The display disappears completely and the REC and PLAY LEDs start to flash. Now the display acts like a level indicator of a tape recorder. When you pluck a string two horizontal lines will appear in the lower, middle or upper part of the display. Pluck one string continously with average plucking strength and adjust the corresponding trimmer until the light settles in the middle of the display. Repeat this for all strings, then press PLAY/PROGRAM again to return to PLAY.

If your synthesizer accepts key velocity information then there is another possibility too:

Pluck one string continously with average plucking strength while the DYNAMICS is turned down to zero, then turn it on to maximum. If the sound gets louder, turn the trimmer corresponding to the plucked string back, if it becomes softer, then turn it up slightly. Do this until the sound is about the same in both positions of the DYNAMICS. Do this for all of the strings.

Certain errors will be indicated when the sensitivity is not adjusted properly:
Sensitivity too low:

a./ At very soft plucking no sound starts at all.
b./ At soft and high sounds bending is not followed properly.

Sensitivity too high:

a./ When chopped chords are played strange sounds appear when the strings are damped.
b./ When you are bending a string the neighbouring string starts too when you hit it whith your left hend.

2. DYNAMICS

If your synthesizer accepts key velocity information then you can use the DYNAMICS potentiometer on the front plate. If you turn it up, the sounds will be very sensitive to the strength of your plucking. If you turn it down the sounds will settle down more and more to an average level.

3. SYNTHESIZER ON'OFF

The leftmost pedal is the ON-OFF/REC-PLAY pedal, which turns the synthesizer sound on and off. You can see this as the REC and PLAY LEDs both turn on and off at the same time. This pedal has a second function too, but more about this later.

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4. TRIGGER, QUANTIZE, BEND modes

The GTM 6 can respond to the bending of a string in three different ways. None of these are better then the other, each of these is very useful in the correct musical application.

In **TRIGGER mode** pitch bending does not follow smoothly, instead a new note is started as you reach the pitch of the neighbouring semitone. The result is as if a piano player was trying to imitate a guitarist.

QUANTIZE mode is similar to this, only the exact pitches of a semitone scale are allowed, but the sound changes from one semitone to the other without starting the attack period again.

BEND mode follows even the slightest bending of your left hand accurately.

The decimal points on the display will help you to remember which of the three bend modes is functioning; no points means that the TRIGGER mode is selected, the left point alone means QUANTIZE mode, both points mean BEND mode.

If you use TRIGGER mode, any MIDI synthesizer can be used without further adjustments. In the other two modes the GTM 6 sends out pitch bend information, so the pitch bend range of the recieving synthesizer has to be set accordingly to this to 8 semitones. For example DX 7 owners should set their PITCH RANGE parameter to 8, POLY 800 owners do not have to do anything since their instrument is fixed at this value.

Some synthesizers from ROLAND have a maximum pitch bend range of 7 semitones, some others from SEQUENTIAL have it fixed at 4. In order to use one of these you must switch the GTM 6 to 4 semitone range. Press the BEND button and keep it down while you change from PLAY mode to PROGRAM mode. On the display the number 4 appears denoting the new pitch bend range. If you repeat this procedure, it flips back to 8.

Remember, since the pitch bend wheel of a synthesizer bends all notes together, there is a disagreement between the possibilities of MIDI and the guitar player when you pluck two or more strings in BEND mode and try to bend one of them. In this case the GTM 6 uses it's TRIGGER mode provisionally until you play monophonically again. If you can afford six synthesizers, (one for each string) then this limitation does not stand as you will see in the next chapters.

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5. CHANNEL, TRANSPOSE, TUNE

When you press the PLAY/PROGRAM switch, PLAY turns off and PROGRAM turns on. The previous three switches will work now as CHANNEL, TRANSPOSE and TUNE. Any sounds coming from the synthesizer will be halted while you are in PROGRAM. In PROGRAM you can program the important parameters of the GTM 6. These parameters will remain intact even if you turn the unit off and they can only be erased by a cold start.

CHANNEL

The GTM 6 can be used with 1 to 6 synthesizers (or a synthesizer with MONO mode) for the 6 strings, an other for the sequencer and one more for the HOLD. If you want to use all these possibilities, you should connect all synthesizers to the MIDI OUT sockets of the GTM 6. The MIDI THROUGH outputs on the synthesizers can be used as well. First assign a channel number between 1 and 8 to each as it is given in their manual and turn OMNI mode off on all synthesizers.

The REC and PLAY leds flash until you define the source you want to assign to a MIDI channel. You can define a string by plucking it, or entering the number of the string on the keypad. The number of the string appears on the display, and you should enter the required MIDI channel number. If you do not want to do anything more, then press PLAY/PROGRAM again and you can play.

Besides the strings you can also name the sequencer as a source if you press the SEQUENCER button (then SE appears on the display) or you can press the HOLD pedal (hd appears on the display). There is one more source you can assign a MIDI channel to: the program change. To achieve this press the CHAIN button (ch appears on the display). With this you can determine which of the synthesizers will be affected by remote program change.

If you want to assign all the 6 strings to the same channel there is a possibility to do it more conveniantly. Instead of pressing the keys 1-6 for choosing one of the strings, press 7 or 8 and AL appears on the display. All strings will be assigned to the MIDI channel now entered.

A cold start assigns every MIDI channel parameter to channel 1.

Excercise

A. The aim is to assign the D string to channel 7:

1./ Press PLAY/PROGRAM
2./ Press CHANNEL
3./ Pluck the D string
or press a on the kaypad
4./ Press 7 on the keypad
5./ Press PLAY/PROGRAM

B. The aim is to assign the A string to 3 and the SEQUENCER to 8:

1./ Press PLAY/PROGRAM
2./ Press CHANNEL
3./ Press 5 (for A string)
4./ Press 3
5./ Press CHANNEL
6./ Press SEQUENCER
7./ Press 8
8./ Press PLAY PROGRAM

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TRANSPOSE

Any of the strings can be transposed any number of semitones within the limits of 3 octaves down and up. Press TRANSPOSE then define a string either by plucking it or pressing the number of the string. If you press 7 or 8 just very quickly the string number disappears and the presently stored transposition value of that string will be written on the display. Transposition value means the number of semitones, so one octave up is 12, and 36 is the maximum. Transposition down is noted by a decimal point.

As you can see two arrows can be found beside the keys 7 and 8, one up and one down. These can be used to edit the transposition values either stepping one by one or running fast on the scale if held down. If you have reached the required value then press TRANSPOSE again to go to an other string or PLAY/PROGRAM to return to play.

Although you can reach any pitch by the way described above, there are two additional transposition possibilities to make life easier. When you press TRANSPOSE, instead of defining one of the strings with the keys 1-6 you can press 7 for SEMITONE (SI appears) or 8 for OCTAVE (OC appears). In these cases you transpose all the 6 strings together either in semitone steps or octave steps.

By cold start each string starts at 0 transposition.

TUNE the GTM 6

In order to run perfectly the GTM 6 and the guitar should be tuned together exactly. You are not restricted to normal tuning, you can tune your guitar anywhere within one semitone up or down from 440 Hz. Anyway, the GTM 6 has to "learn" your tuning. When you have tuned your guitar exactly as you wish, press TUNE and then pluck the A string softly and let it decay. Flashing will stop soon and on the display you will see your tuning in cents. From this point on this will be the tuning the GTM 6 accomodates to. PLAY/PROGRAM will take you back to the PLAY mode.

The initial value by cold start is the exact 440 Hz.

TUNE the guitar

The GTM 6 can also be used as an extrordinary tuning aid. In the PROGRAM mode press the TUNE key twice successively. Then pluck any of the strings and the display will show the pitch deviation of that string in cents compared to the 440 Hz tuning. If the string is out of the one semitone border limits a horizontal line appears at the top or the bottom of the display, showing that the pitch is above or below the proper range.

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6. Program change and CHAIN programing

The presents of the synthesizer can be changed from the numeric keypad of the GTM 6. To achieve this you have to take care for the following things:

a./ The program change MIDI channel described above is the same as on the synthesizer.

b./ Program change is engaged on the synthesizer. Check the manual how to do this:

In order to get a program change you have to type two numbers successively, just like on KORG synthesizers. The numbers appearing on the GTM 6 display and a KORG display will be the same. Some other manufacturers, YAMAHA for example use different system. Programs will be changed on these as well, only the numbers appearing will be different. Here is a list of the display numbers belonging to the same program preset:

KORG:	YAMAHA:	KORG:	YAMAHA:	KORG:	YAMAHA:	KORG:	YAMAHA:
11	1	31	17	51	33	71	49
12	2	32	18	52	34	72	50
13	3	33	19	53	35	73	51
14	4	34	20	54	36	74	52
15	5	35	21	55	37	75	53
16	6	36	22	56	38	76	54
17	7	37	23	57	39	77	55
18	8	38	24	58	40	78	56
21	9	41	25	61	41	81	57
22	10	42	26	62	42	82	58
23	11	43	27	63	43	83	59
24	12	44	28	64	44	84	60
25	13	45	29	65	45	85	61
26	14	46	30	66	46	86	62
27	15	47	31	67	47	87	63
28	16	48	32	68	48	88	64

With the CHAIN pedal a preprogrammed chain of presets can be recalled. If you decide the order of presets for a particular performance then you can program them into the GTM 6 and later on they can be recalled one by one.

Take care because whenever you program a new CHAIN, the contents of the sequencer will be lost.

Write down the required chain of presets on a sheet of paper and press the PLAY/PROGRAM, so that it is in PROGRAM mode. Press the CHAIN button. Type in the preset numbers one by one (of course by the KORG notation). After typing in the two digits of a preset you can see on the display the serial number of the next preset appearing. When you are ready press CHAIN again, then press PLAY/PROGRAM to return to PLAY.

You also have the possibility to memorize one of the bend modes together with each preset. If you press one of the TRIGGER, QUANTIZE, or BEND buttons immediately before entering the next preset number whilst programming, the correct bend mode will be recalled together with this preset. Otherwise bend mode will not be affected by the preset chain.

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CHAIN goes around, so from the last preset it jumps back to the first one. When you turn the GTM 6 on, CHAIN will start always from the first preprogrammed preset.

The result of a cold start is that CHAIN will go through the presets from 11 to 48.

There is a more advanced way to use the CHAIN pedal. If you have three synthesizers assigned to different MIDI channels, one for playing the guitar, one for the SEQUENCER, and one for the HOLD, you can also assign up to three preset chains to them.

To achieve this first you have to assign a MIDI channel to each. In the PROGRAM mode, press CHANNEL, then press the CHAIN pedal. Now press three numbers successively (instead of only one as it was described earlier). This way you assigned a MIDI channel to each of chains 1, 2, and 3.

The MIDI channel of the first chain will also be the channel for the direct preset change from the numeric keypad.

After setting the MIDI channels as described above, you can program the chains themselves. In the PROGRAM mode, press the CHAIN pedal and type in the first three preset numbers for the chains 1, 2, and 3. The preset serial number will advance only after all the three presets have been typed, and you can assign the second three. Programming one of the three bend modes should be done - if necessary - before entering the next three numbers. When you are ready, press the CHAIN pedal, and then PLAY/PROGRAM to return to PLAY mode.

The free memory space of the GTM 6 is shared between up to 7500 memory locations for presets and 1000 notes for the SEQUENCER.

7. HOLD

The middle pedal is the HOLD-FUNCTION. This functions in two different ways depending on whether you can dedicate a separate synthesizer to it or if it has to be shared with the guitar itself. This will be acknowledged by the fact that the MIDI channel of the guitar strings is the same as that of the HOLD.

If you cannot dedicate a synthesizer to it, then HOLD will sustain the sound that on is the moment you press the pedal and will sustin it until you release it again. During this you can play further using the natural sound of the guitar. If you want to sustain a chord, for example, you have to play the chord first then press the pedal a moment later.

If you use synthesizer A for the guitar strings and synthesizer B separately for the HOLD then whenever you push the pedal the sound of A stops immidiately and B will start any new note. When the pedal is released the last sustained notes of B will be held until you push the pedal again. If you want to sustain a chord then push the pedal first, hit the chord and release the pedal immidiately. The pictures on the programing card explain all these operations.

In the second mode you can use the HOLD pedal to switch back and forth between two synthesizers by keeping the pedal down for B and releasing it for A.

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8. SEQUENCER

Cartainly any MIDI sequencer can be connected to the GTM 6 just as if it were a MIDI keyboard itself. In spite of this the GTM 6 contains an internal sequencer which is rather unusual in that it is optimized for live performance.

If you press SEQUENCER then REC and PLAY leds will start flashing. This indicates that the sequencer is waiting for a start command. This can be achieved by either pressing SEQUENCER once again so that it starts to replay the last contents of its memory or pushing the REC-PLAY/ON-OFF pedal which starts recording once again.

Recording has to start in time with the music. If you want to record one measure for an ostinato accompaniment then press the pedal as soon as the first note is plucked (the REC light remains on). Now the same pedal has to be pushed again at the start of the next measure and at this point the REC led goes off, PLAY led turns on and the sequencer starts to replay, so you will not notice when the sequencer started. See also the programing card how to do this.

The sequencer can memorize about 1000 notes and recording time is limited to about 90 seconds. Pitch bending is recorded too, although in this case it uses up some of the memory. A melody stored in the memory will remain intact even if the GTM 6 has been turned off and on again.

If the same synthesizer is shared between playing directly and the sequencer, the GTM 6 jumps automatically to TRIGGER MODE. Otherwise pitch bendings would bend the sequence out of tune as well.

You can record a sequence so, that you are listening to the continous patterns of a drum machine while playing. Since you cannot press the pedal exactly in time, the two machines would slip out of timing after a few loops. To prevent this connect the MIDI OUT of the GTM6 to the MIDI IN of the drum machine. The GTM 6 sends out stop and start signals to bring the drum machine back into sync at the end of each loop.

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03-30-1995 10:08AM FROM SHADOW U.S.A TO 15188995020 P.02

The original socket should be unsoldered and the hot wire (plug tip) be soldered to the mi-niswitch (see Drawing). The socket earth wire is soldered to the potentiometer casing.

Fit stereo socket instead of original socket.

When fitting, check that shielding is insulated from pick-up cable to avoid short-circuit. When all components have been fitted and wired up, connect guitar to a **standard** guitar cable (mono-plug) and connect it to the **guitar amplifier.**

Check the mini-switch position that gives electric guitar sound. Mark this position **electric guitar.** Mark opposite position MIDI output.

Set guitar to MIDI position, connect to GTM 6 by **stereo cable** supplied with the GTM 6.

Connect outputs at back of GTM 6 to amplifier via a guitar cable. The "Electric" output will now transmit signal from electric guitar pick-up and the "Acoustic" output at the back of the GTM 6 will transmit the signal from the MIDI piezo pick-up and has the sound of an acoustic guitar.

Connect MIDI output to MIDI-IN input on synthesizer.

Check that synthesizer is set to MIDI receiving channel No. 1. When playing through GTM6 **check that mini-switch** is left on MIDI position on guitar. The electric guitar sound can be adjusted with the potentiometer on the guitar as usual. The acoustic guitar sound of your electric guitar is adjusted by means of the potentiometer you have fitted (connected to multiplexer).

You can switch synthesizer sound on & off with the on-off pedal. See the GTM 6 instructions for this.

If you want to use your electric guitar as an ordinary electric guitar, connect it by the standard guitar cable to the guitar amplifier and set mini-switch to normal electric guitar position.

Your guitar must always be properly tuned to avoid incorrect signals and out-of-tune notes. Guitar neck must be straight and the strings must be clear of it, since incorrect signals will result otherwise.

Our technicians will be glad to help you with any problems 01-278-4631/2/3

Enjoy yourself!

SHADOW – JM
Elektroakustik GmbH & Co. KG
In der Zeil 39
D-8520 Erlangen

TOTAL P.02

Montageanleitung

für MIDI-Tonabnehmer und Multiplexer in die Elektro-Gitarre

Instructions for fitting

Midi Pick-Up and Multiplexer to Electric-Guitar

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(518) 899-5020

03-30-1995 10:07AM FROM SHADOW U.S.A TO 15188995020 P.01

bausatz besteht aus folgenden Teilen:

NEHMER, eingebaut in TREMOLO, aufschraubbaren Steg oder LES PAUL STEG.
ger mit Potentiometer, Minischalter und Stereoausgangsbuchse.

tiplexer soll so in die Gitarre eingebaut werden, daß das Gehäuse keinen Kontakt übrigen Bauteilen in der Gitarrenschaltung bekommt, da es sonst einen Kurz- geben kann.

nabnehmerkabel werden auf der Multiplexplatine wie folgt angelötet:

l mit schwarzer Markierung an der Lötstelle mit der Bezeichnung **»Black«** (Seite E 6).

l mit blauer Markierung an der Lötstelle mit der Bezeichnung **»Blue«** (Seite A 5).

l mit gelber Markierung an der Lötstelle mit der Bezeichnung **»Yellow«** (Seite D 4).

l mit grüner Markierung an der Lötstelle mit der Bezeichnung **»Green«** (Seite G 3).

l mit roter Markierung an der Lötstelle mit der Bezeichnung **»Red«** (Seite B 2).

l ohne Markierung an der Lötstelle mit der Bezeichnung **»Transparent«** (Seite E 1).

inalbuchse soll abgelötet und der heiße Draht (Steckerspitze) auf dem Minischalter et werden (siehe Zeichnung).

ssedraht der Buchse wird am Potentiometergehäuse angelötet.

uchse anstatt Originalbuchse montieren.

eim Einbau zu beachten, daß die Abschirmung vom Tonabnehmerkabel isoliert mit sie keinen Kurzschluß bilden kann. Wenn Sie alle Bauteile eingebaut und ver- haben, verbinden Sie Ihre Gitarre mit einem **normalen** Gitarrenkabel (Monostek- 1 schließen es an den **Gitarrenverstärker** an.

Sie, in welcher Schalterstellung vom Minischalter Sie den Klang der Elektro-Gitarre men. Markieren Sie diese Stellung als **Elektro-Gitarre.** Die gegenüberliegende tellung markieren Sie mit MIDI-Ausgang.

ie Ihre Gitarre jetzt auf MIDI-Stellung umschalten, schließen Sie die Gitarre mit dem **kabel,** das mit dem GTM 6 mitgeliefert wird, an GTM 6 an. Verbinden Sie die Aus- auf der Rückseite des GTM 6 mit einem Gitarrenkabel an den Verstärker. Der Aus- it der Bezeichnung »Electric« wird jetzt das Signal vom Elektro-Gitarrentonabneh- d der Ausgang mit der Bezeichnung »Acoustic« auf der Rückseite des GTM 6 das vom MIDI Piezo Tonabnehmer übertragen und hat den Klangcharakter einer Aku- tarre. Verbinden Sie den MIDI-Ausgang mit dem MIDI-IN-Eingang am Synthesizer. ugen Sie sich, daß der Synthesizer auf MIDI-Empfangskanal Nr. 1 eingestellt ist. nd Sie über GTM 6 spielen, **muß der Minischalter** auf der Gitarre in MIDI-Stellung . Den Elektro-Gitarrensound regulieren Sie mit dem Potentiometer auf der Gitarre wohnt. Den Akustik-Gitarrensound Ihrer Elektro-Gitarre regulieren Sie mit dem iometer, den Sie eingebaut haben (mit Multiplexer verbunden).

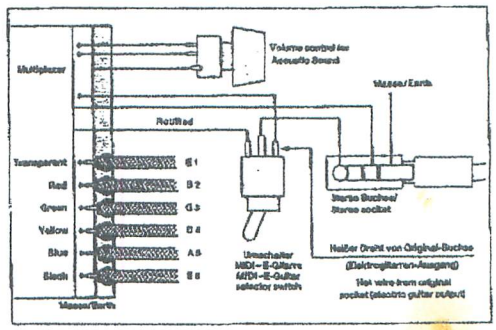
ynthesizerklang können Sie ein- oder ausschalten mit Pedal on-off. Lesen Sie dazu truktionen von GTM 6.

Wenn Sie Ihre Elektro-Gitarre als einfache Elektro-Gitarre benutzen wollen, schließen Sie die Gitarre mit dem normalen Gitarrenkabel an den Gitarrenverstärker an und schalten sie den Minischalter in die Stellung für normale Elektro-Gitarre.

Ihre Gitarre soll immer gut gestimmt sein, sonst könnte es zu Falschinformationen kommen und dadurch falsche Töne erklingen lassen. Es ist wichtig, daß der Gitarrenhals gerade ist und die Saiten nicht am Hals anschlagen, da sie sonst falsche Informationen hervorufen können.

Unser technisches Personal steht Ihnen bei allen Problemen zur Verfügung und ist erreichbar unter Telefon 09131/601347.

Wir wünschen Ihnen viel Spaß!



The kit consists of the following:

Pick-up, fitted in a TREMOLO, screw-on bridge or LES PAUL BRIDGE, multiplexer with potentiometer, mini switch and stereo output socket.

The multiplexer should be fitted in the guitar so as to avoid any contact between the casing and the other guitar circuit components, since otherwise there is the risk of short-circuits.

Pick-up cables to be soldered to multiplexer board as follows:

- Cable with black marking to **"Black"** tag (String E 6)
- Cable with blue marking to **"Blue"** tag (String A 5)
- Cable with yellow marking to **"Yellow"** tag (String D 4)
- Cable with green marking to **"Green"** tag (String G 3)
- Cable with red marking to **"Red"** tag (String B 2)
- Cable with no marking to **"Transparent"** tag (String E 1)

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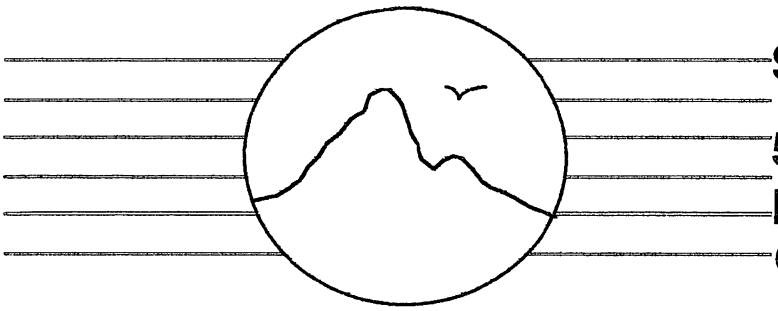

STEVE TANNER
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luthier
Guitar work done right

Mark

hope your well. It was a real struggle disassembling the pickup with humbucker/built in hex/serial interface. they must have a jig for it at the factory, wow was it sensitve. anyway thats where the 2d serieal interface comes from. I laid out a physical diagram on a business card and included the shadow diagram, with both a competent tech should be able to figure it out. I labeled the wire budles that came out of the pickup as 1, 2, 3. Group 3 can pretty much be ignored as that controled the switching capabilities of the mag pu and is outside the interface. I've included the connections for the mag pu on the outside chance it will get used that way, if you use it on the ovation w/o other pu it should be fairly straight forward. I believe it will work just fine, but my electronic skills are limited. if it does not you should be able to contact shadow germany, and either get another interface or help on this one.

The other serial interface i left wired as i used it. the shadow diagram shows an additional switch to turn piezo/midi on/off. I did not use it that way. I found the switch noisey and unnecessary. You can on/off the midi via foot switch(easier) and vol on piezo. any switch will work if you choose to reaply this. I would recommend you use this one on your LP style gtr as this was how i used it and i know for sure it will work fine. I do not anticipate your having trouble with the other one but if you do call shadow in germany not usa. when i needed assistance before i found it useless to talk to the american affiliate. I think they're just sales goobs, I was able to get excellent help when i spoke to the german office. Most everything is in good shape cosmetically and everything functions to spec. There is another saddle for the 1550 pickup you should be able to get it set up ok. Since you have previous gtr synth experience i'm sure you know how to optimize the synth for it. The piezo system has wider dynamic range than other systems, in my book this is great but it does make it more sensitive to picking transients. you can turn the sensitivity knobs down pretty far, still get good synth response and not so much extraneous stuff. I found that i adjusted them frequently for different playing setups. In general it has the same tracking response as a GR system with more dynamic range and much more control functions. It will take some getting used to, it seems that guitar synthes are like new instruments, you have to adjust your playing a little. The new system I got is faster but still prone to wierdness when you get guitaristic, and it's supposed to be the best. Best of luck to ya.

Steve Tanner

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